RAW SEQUENCE LISTING

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Information Center (STIC) no errors detected.

Application Serial Number: 10/712,533 A
Source: TWO
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RAW SEQUENCE LISTING   DATE: 11/22/2004
PATENT APPLICATION: US/10/712,533A   TIME: 11:12:29

Input Set : A:\02356.0086 SEQUENCE LISTING.txt
Output Set: N:\CRF4\11222004\J712533A.raw

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    5 <110> APPLICANT: Institut Pasteur
    9 <120> TITLE OF INVENTION: PLASMODIUM FALCIPARUM ANTIGENS AND VACCINE AND DIAGNOSTIC
USES THEREOF
   13 <130> FILE REFERENCE: 000466-0035
C--> 17 <140> CURRENT APPLICATION NUMBER: US/10/712,533A
C--> 17 <141> CURRENT FILING DATE: 2003-11-14
   17 <150> PRIOR APPLICATION NUMBER: CA 2,345,206
   19 <151> PRIOR FILING DATE: 2001-05-16
   23 <150> PRIOR APPLICATION NUMBER: CA 2,346,968
   25 <151> PRIOR FILING DATE: 2001-05-23
   29 <160> NUMBER OF SEQ ID NOS: 18
   33 <170> SOFTWARE: PatentIn version 3.1
   37 <210> SEQ ID NO: 1
   39 <211> LENGTH: 192
   41 <212> TYPE: DNA
   43 <213> ORGANISM: Plasmodium falciparum
   47 <400> SEQUENCE: 1
   48 gaattccata tgcacgatta catatatgat gatcgtatct acaataatga taaagagaaa      60
   50 aatgttataa aaagtgataa taaaaatgtt ataaaaagtg ataataaaaa tgattataaa     120
   52 aagtgtaata aaaatgttat aaaaagtgat aataaaaatg ttataaaaag tgataataaa     180
   54 aatgtggaat tc                                                         192
   57 <210> SEQ ID NO: 2
   59 <211> LENGTH: 351
   61 <212> TYPE: DNA
   63 <213> ORGANISM: Plasmodium falciparum
   67 <400> SEQUENCE: 2
   68 gaattcccag atcctcgaag taatgaccaa gaagatgcta ctgacgatgt tgtagaaaat      60
   70 agtagagatg ataataatag tctctctaat agcgtagata tcaaagtaa tgttttaaat     120
   72 agagaagatc ctattgcttc tgaaactgaa gttgtaagtg aacctgagga ttcaagtagg     180
   74 ataatgacta cagaagttcc aagtactact gtaaaacccc ctgatgaaaa acgatctgaa     240
   76 gaagtaggag aaaaagaagc taaagaaatt aaagtagaac ctgttgtacc aagagccatt     300
   78 ggagaaccaa tggaaaattc tgtgagcgta cagtcccctc ctaaggaatt c              351
   81 <210> SEQ ID NO: 3
   83 <211> LENGTH: 64
   85 <212> TYPE: PRT
   87 <213> ORGANISM: Plasmodium falciparum
   91 <400> SEQUENCE: 3
   93 Glu Phe His Met His Asp Tyr Ile Tyr Asp Asp Arg Ile Tyr Asn Asn
   94 1               5                   10                  15
   97 Asp Lys Glu Lys Asn Val Ile Lys Ser Asp Asn Lys Asn Val Ile Lys
   98           20                  25                  30
  101 Ser Asp Asn Lys Asn Asp Tyr Lys Lys Cys Asn Lys Asn Val Ile Lys
  102           35                  40                  45
  105 Ser Asp Asn Lys Asn Val Ile Lys Ser Asp Asn Lys Asn Val Glu Phe
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111 <211> LENGTH: 117
113 <212> TYPE: PRT
115 <213> ORGANISM: Plasmodium falciparum
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122 1               5               10              15
125 Val Val Glu Asn Ser Arg Asp Asp Asn Asn Ser Leu Ser Asn Ser Val
126           20              25              30
129 Asp Asn Gln Ser Asn Val Leu Asn Arg Glu Asp Pro Ile Ala Ser Glu
130         35              40              45
133 Thr Glu Val Val Ser Glu Pro Glu Asp Ser Ser Arg Ile Met Thr Thr
134     50              55              60
137 Glu Val Pro Ser Thr Thr Val Lys Pro Pro Asp Glu Lys Arg Ser Glu
138 65                  70              75                  80
141 Glu Val Gly Glu Lys Glu Ala Lys Glu Ile Lys Val Glu Pro Val Val
142               85              90                  95
145 Pro Arg Ala Ile Gly Glu Pro Met Glu Asn Ser Val Ser Val Gln Ser
146           100             105                 110
149 Pro Pro Lys Glu Phe
150         115
153 <210> SEQ ID NO: 5
155 <211> LENGTH: 5
157 <212> TYPE: PRT
159 <213> ORGANISM: Plasmodium falciparum
163 <400> SEQUENCE: 5
165 Asp Asn Lys Asn Val
166 1               5
169 <210> SEQ ID NO: 6
171 <211> LENGTH: 5
173 <212> TYPE: PRT
175 <213> ORGANISM: Plasmodium falciparum
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182 1               5
185 <210> SEQ ID NO: 7
187 <211> LENGTH: 6
189 <212> TYPE: PRT
191 <213> ORGANISM: Plasmodium falciparum
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198 1               5
201 <210> SEQ ID NO: 8
203 <211> LENGTH: 7
205 <212> TYPE: PRT
207 <213> ORGANISM: Plasmodium falciparum
211 <400> SEQUENCE: 8
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219 <211> LENGTH: 1524
221 <212> TYPE: DNA
223 <213> ORGANISM: Plasmodium falciparum
227 <220> FEATURE:
229 <221> NAME/KEY: CDS
231 <222> LOCATION: (1)..(1524)
233 <223> OTHER INFORMATION:
237 <400> 9
238 atg aag acg aca aaa gaa aat gac aat aat aac ata gta cat tat gta      48
239 Met Lys Thr Thr Lys Glu Asn Asp Asn Asn Asn Ile Val His Tyr Val
240 1               5                   10                  15
242 gat tgg ata aac cag att ttt aaa aag aat tct tta caa tgt gat tta      96
243 Asp Trp Ile Asn Gln Ile Phe Lys Lys Asn Ser Leu Gln Cys Asp Leu
244             20                  25                  30
246 tat ttt ttg gat gac aac aaa gaa aaa gat gtt agt aag aaa aga aaa     144
247 Tyr Phe Leu Asp Asp Asn Lys Glu Lys Asp Val Ser Lys Lys Arg Lys
248         35                  40                  45
250 gct caa ttg aag gat gaa tat gat aat ata tca agg agc aaa gaa aat     192
251 Ala Gln Leu Lys Asp Glu Tyr Asp Asn Ile Ser Arg Ser Lys Glu Asn
252     50                  55                  60
254 att aat aat tcc aaa aaa ata aaa aat gaa tta agt ata aaa gat aat     240
255 Ile Asn Asn Ser Lys Lys Ile Lys Asn Glu Leu Ser Ile Lys Asp Asn
256 65                  70                  75                  80
258 atg cac gat tac ata tat gat gat cgt atc tac aat aat gat aaa gag     288
259 Met His Asp Tyr Ile Tyr Asp Asp Arg Ile Tyr Asn Asn Asp Lys Glu
260                 85                  90                  95
262 aaa aat gtt ata aaa agt gat aat aaa aat gtt ata aaa agt gat aat     336
263 Lys Asn Val Ile Lys Ser Asp Asn Lys Asn Val Ile Lys Ser Asp Asn
264             100                 105                 110
266 aaa aat gat tat aaa aag tgt aat aaa aat gtt ata aaa agt gat aat     384
267 Lys Asn Asp Tyr Lys Lys Cys Asn Lys Asn Val Ile Lys Ser Asp Asn
268         115                 120                 125
270 aaa aat gtt ata aaa agt gat aat aaa aat gtt ata aaa agt gat aat     432
271 Lys Asn Val Ile Lys Ser Asp Asn Lys Asn Val Ile Lys Ser Asp Asn
272     130                 135                 140
274 aaa aat gtt ata aaa agt gat tat aaa agt gat gat aga aat gct tgt     480
275 Lys Asn Val Ile Lys Ser Asp Tyr Lys Ser Asp Asp Arg Asn Ala Cys
276 145                 150                 155                 160
278 gat att tat aaa agt aat aaa aaa aat gtt cct gat aat tgc cat ata     528
279 Asp Ile Tyr Lys Ser Asn Lys Lys Asn Val Pro Asp Asn Cys His Ile
280                 165                 170                 175
282 tat gat gat aat agt tca gtt gaa aat tta gat gga aaa aat aaa tta     576
283 Tyr Asp Asp Asn Ser Ser Val Glu Asn Leu Asp Gly Lys Asn Lys Leu
284                 180                 185                 190
286 aat aat ata agg aac ata cat aat gat aac tca tct tca tgc gat ata     624
287 Asn Asn Ile Arg Asn Ile His Asn Asp Asn Ser Ser Ser Cys Asp Ile
288             195                 200                 205
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290 tcc gat ata aaa agt gaa gat gaa tat ata gaa cca tat gaa aaa aag       672
291 Ser Asp Ile Lys Ser Glu Asp Glu Tyr Ile Glu Pro Tyr Glu Lys Lys
292     210               215               220
294 aat gaa gaa aat ata aat gaa tat aag aat aag aaa aat ata gcc aat       720
295 Asn Glu Glu Asn Ile Asn Glu Tyr Lys Asn Lys Lys Asn Ile Ala Asn
296 225               230               235               240
298 gaa aat ata aaa gaa gga aag agt tca att tat aat gat gaa cat aat       768
299 Glu Asn Ile Lys Glu Gly Lys Ser Ser Ile Tyr Asn Asp Glu His Asn
300               245               250               255
302 tat aat tca tta tta tat aat tct tgt aat ggt gaa ata agt aag atc       816
303 Tyr Asn Ser Leu Leu Tyr Asn Ser Cys Asn Gly Glu Ile Ser Lys Ile
304               260               265               270
306 aac aaa ata agt agt cat aat aat att gat aat aat atg gat aat tat       864
307 Asn Lys Ile Ser Ser His Asn Asn Ile Asp Asn Asn Met Asp Asn Tyr
308           275               280               285
310 aat acg ttt gca aat gtg aat aat ttt ata ata tat tcc tca gat gat       912
311 Asn Thr Phe Ala Asn Val Asn Asn Phe Ile Ile Tyr Ser Ser Asp Asp
312     290               295               300
314 gaa gat aat ata tca aat tat tat aat ggt aaa gac gta tta aat gat       960
315 Glu Asp Asn Ile Ser Asn Tyr Tyr Asn Gly Lys Asp Val Leu Asn Asp
316 305               310               315               320
318 gag att atg ttc cct ata aaa ttt aat ttt gaa aaa tta aaa aaa aat      1008
319 Glu Ile Met Phe Pro Ile Lys Phe Asn Phe Glu Lys Leu Lys Lys Asn
320               325               330               335
322 att tat gta ata gag cat ata gac aaa ata tat tat gat aca ttt tta      1056
323 Ile Tyr Val Ile Glu His Ile Asp Lys Ile Tyr Tyr Asp Thr Phe Leu
324               340               345               350
326 aat aaa aat cca agt gaa aaa agt gtt ttt atg aat gat gaa tct act      1104
327 Asn Lys Asn Pro Ser Glu Lys Ser Val Phe Met Asn Asp Glu Ser Thr
328           355               360               365
330 ggt tat ttg aaa aat gat gtg aat gac aaa tgt gtt gtt gat aat ata      1152
331 Gly Tyr Leu Lys Asn Asp Val Asn Asp Lys Cys Val Val Asp Asn Ile
332     370               375               380
334 aat gtt att aat cct tct agt gtg aat acg ttg agt aat att tca aat      1200
335 Asn Val Ile Asn Pro Ser Ser Val Asn Thr Leu Ser Asn Ile Ser Asn
336 385               390               395               400
338 att agg aat gaa aaa ata gaa aat aat aat aag aat gaa aaa tta ata      1248
339 Ile Arg Asn Glu Lys Ile Glu Asn Asn Asn Lys Asn Glu Lys Leu Ile
340           405               410               415
342 aaa tca tat cct aca caa tca aaa aat gtt atg agt aca ttt tcc ttt      1296
343 Lys Ser Tyr Pro Thr Gln Ser Lys Asn Val Met Ser Thr Phe Ser Phe
344           420               425               430
346 tgg aat att gaa aag gag aca ttt ata aca aaa cct ttg tat gca caa      1344
347 Trp Asn Ile Glu Lys Glu Thr Phe Ile Thr Lys Pro Leu Tyr Ala Gln
348           435               440               445
350 aat ttg aga aaa aaa caa ttt agt tta tta gat gaa tct gaa gag atg      1392
351 Asn Leu Arg Lys Lys Gln Phe Ser Leu Leu Asp Glu Ser Glu Glu Met
352     450               455               460
354 ata aga aat tat tca tct aat caa tat tct ata aaa ttt gta cca aga      1440
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355 Ile Arg Asn Tyr Ser Ser Asn Gln Tyr Ser Ile Lys Phe Val Pro Arg
356 465               470               475               480
358 cat tta tta tat gta atg agt caa gtt gct tct cga tcc ttt ttt gat        1488
359 His Leu Leu Tyr Val Met Ser Gln Val Ala Ser Arg Ser Phe Phe Asp
360               485               490               495
362 cct tta tat aga aag cag tta ttt ttt cgt tac taa                        1524
363 Pro Leu Tyr Arg Lys Gln Leu Phe Phe Arg Tyr
364               500               505

367 <210> SEQ ID NO: 10

369 <211> LENGTH: 507

371 <212> TYPE: PRT

373 <213> ORGANISM: Plasmodium falciparum

377 <400> SEQUENCE: 10
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383 Asp Trp Ile Asn Gln Ile Phe Lys Lys Asn Ser Leu Gln Cys Asp Leu
384               20               25               30
387 Tyr Phe Leu Asp Asp Asn Lys Glu Lys Asp Val Ser Lys Lys Arg Lys
388               35               40               45
391 Ala Gln Leu Lys Asp Glu Tyr Asp Asn Ile Ser Arg Ser Lys Glu Asn
392     50               55               60
395 Ile Asn Asn Ser Lys Lys Ile Lys Asn Glu Leu Ser Ile Lys Asp Asn
396 65               70               75               80
399 Met His Asp Tyr Ile Tyr Asp Asp Arg Ile Tyr Asn Asn Asp Lys Glu
400               85               90               95
403 Lys Asn Val Ile Lys Ser Asp Asn Lys Asn Val Ile Lys Ser Asp Asn
404               100               105               110
407 Lys Asn Asp Tyr Lys Lys Cys Asn Lys Asn Val Ile Lys Ser Asp Asn
408               115               120               125
411 Lys Asn Val Ile Lys Ser Asp Asn Lys Asn Val Ile Lys Ser Asp Asn
412     130               135               140
415 Lys Asn Val Ile Lys Ser Asp Tyr Lys Ser Asp Asp Arg Asn Ala Cys
416 145               150               155               160
419 Asp Ile Tyr Lys Ser Asn Lys Lys Asn Val Pro Asp Asn Cys His Ile
420               165               170               175
423 Tyr Asp Asp Asn Ser Ser Val Glu Asn Leu Asp Gly Lys Asn Lys Leu
424               180               185               190
427 Asn Asn Ile Arg Asn Ile His Asn Asp Asn Ser Ser Ser Cys Asp Ile
428               195               200               205
431 Ser Asp Ile Lys Ser Glu Asp Glu Tyr Ile Glu Pro Tyr Glu Lys Lys
432     210               215               220
435 Asn Glu Glu Asn Ile Asn Glu Tyr Lys Asn Lys Lys Asn Ile Ala Asn
436 225               230               235               240
439 Glu Asn Ile Lys Glu Gly Lys Ser Ser Ile Tyr Asn Asp Glu His Asn
440               245               250               255
443 Tyr Asn Ser Leu Leu Tyr Asn Ser Cys Asn Gly Glu Ile Ser Lys Ile
444               260               265               270
447 Asn Lys Ile Ser Ser His Asn Asn Ile Asp Asn Asn Met Asp Asn Tyr
448               275               280               285
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VERIFICATION SUMMARY   DATE: 11/22/2004
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Output Set: **N:\CRF4\11222004\J712533A.raw**

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L:17  M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:237 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:9,Line#:233
L:537 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:11,Line#:523
L:547 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:11,Line#:533
L:557 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:11,Line#:543
L:557 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:11,Line#:553
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